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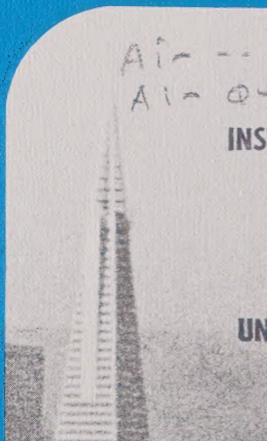
Air -- Pollution
Air Quality mgmt --
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WHAT IS AIR POLLUTION



WHAT IS AIR POLLUTION?

Air pollution isn't any **one** thing. Over one hundred varieties — solid particles, liquid mists and gases — have been identified to date. Some, like dust, occur naturally; others are exclusively man-made. Smoke is a highly-visible form of air pollution, but many of the most damaging and dangerous kinds, such as carbon monoxide, are invisible gases.

Perhaps the most notorious type of air pollution is "photo-chemical smog." It is created chemically in the atmosphere when the sun's radiation converts man-made gases into yellowish-brown, eye-irritating pollutants called oxidant.

WHY DO WE HAVE AIR POLLUTION IN THE BAY AREA?

Topographically, the Bay Area resembles an irregular, shallow bowl surrounded by hills, ideal for trapping and holding air pollutants. It is also subject to periodic **temperature inversions** — layers of warm air which act as a lid to hold cooler, pollutant-laden air close to the ground. A dirty, yellow-brown line across the sky marks the height of an inversion layer. Because of the hills and the inversions there has always been potential for air pollution in the Bay Area. With

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keeping sources under surveillance. Citizen complaints coming into the District headquarters are radioed out to these field inspectors for immediate action.

Violators of District regulations receive violation notices requiring compliance and fines. Continuous violators can be shut down by an injunction obtained by the District through Superior Court.

The District's Technical Services Division operates a full laboratory to analyze industrial effluent and a network of over 30 air monitoring stations to continuously test air quality in the Bay Area.

The BAAPCD currently operates on a budget of more than five million dollars per year with a staff of over 200 people. It derives its revenue primarily from property taxes of the counties it serves, at a rate of about 2¢ per \$100.00 of assessed valuation. This works out to about \$1.50 per year on the tax bill of the owner of a \$30,000.00 home.

Among the publications available to the public are *Air Currents*, the District's monthly newsletter and the agenda and minutes for Board meetings.

IS THE AIR POLLUTION PROBLEM GROWING?

The best available data indicates that air pollution is NOT increasing in most parts of the Bay Area. Long term studies of pollutant levels in the ambient air, based on data from the District's air monitoring network, reveal that oxidant concentrations have declined in most parts of the District, particulate matter counts have dropped sharply and visibility has improved over the last decade.



an increase in population, that potential developed into a real problem.

Today, nearly five million people live in the San Francisco Bay Area. They drive about three million cars, cook meals and use electrical power. Thousands of industries operate to serve their needs. From these and other sources, an estimated 6,600 tons of pollutants are pumped into the Bay Area skies daily. On days of adverse meteorological conditions (low inversion and weak breezes) these emissions remain motionless and the sky turns a dirty brown color.

WHAT ARE THE EFFECTS OF AIR POLLUTION?

Air pollution affects many materials and vegetation. Steel, copper, paint, paper and clothing can all be damaged by various air pollutants. Some contaminants stunt or discolor leafy vegetables; others lessen the yields of citrus trees, blight ornamental plants and attack grape vines, causing millions of dollars worth of damage each year.

Air pollution contributes to the effects of various diseases, particularly those attacking the lungs. People with bronchitis, emphysema and asthma tend to suffer more during periods of acute air pollution.

High concentrations of air pollution, when continued for several days, can have very serious effects. The best known "killer-smog" episodes, caused by a lethal mixture of sulfur oxides and smoke particles, occurred at Donora, Pennsylvania in 1948 and in London, England, in 1952 and again in 1962.

This kind of episode has not occurred in the Bay Area, where natural gas is used more than coal and oil. However, the growing shortage of natural gas could alter this situation in the future.



WHAT IS BEING DONE ABOUT AIR POLLUTION?

Programs exist on all levels of government to fight air pollution.

The Environmental Protection Agency (EPA) funds basic research on the effects of air pollution and partially subsidizes local enforcement programs through maintenance grants. The EPA has established national Air Quality Standards to preserve air quality. Every state in the union must submit an Implementation Plan to the EPA outlining how it will meet and maintain these air quality standards.

The State of California's Air Resources Board (ARB) is responsible for controlling vehicular emissions within the State by requiring emission controls on new cars coming into California for sale. Each year these standards become more restrictive.

Our own Bay Area Air Pollution Control District (BAAPCD) is a regional agency with jurisdiction primarily over non-vehicular sources of air pollution and with some planning powers. Marin, San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Napa and parts of Sonoma and Solano Counties are members of the District.

District regulations control open burning, incineration, smoke and other emissions from factories and evaporative compounds such as gasoline. Its inspectors patrol assigned territories in two-way radio cars



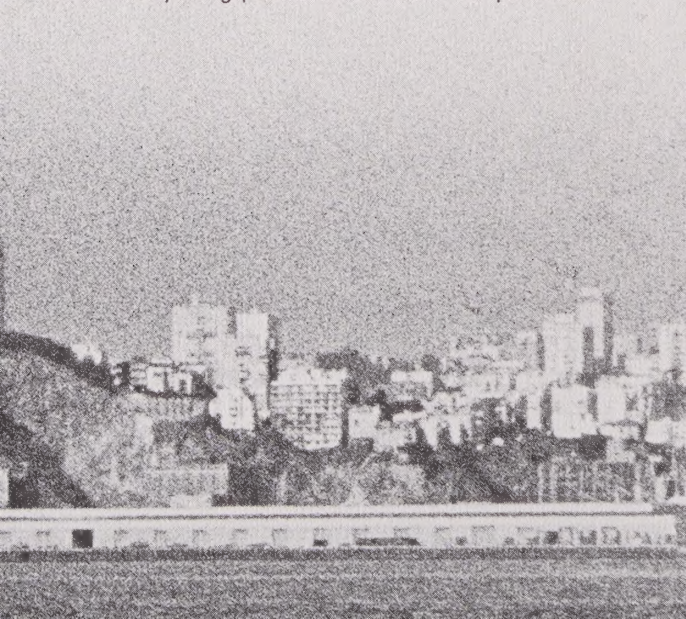
WHAT ABOUT THE FUTURE?

As air quality studies in the Bay Area have shown, pollutant levels are being reduced because of the progressively more stringent controls on automobiles, factories and other air pollution sources. While this improvement is expected to continue through the 1970's, all evidence points to a leveling out, then an upswing in air pollution in the 1980's. The reason: continuing growth in the Bay Area — more cars, more industry and more people — will overwhelm direct controls.

All levels of government — the Federal EPA, the ARB and the BAAPCD — are aware of this problem. As a result, steps are already being taken to develop secondary controls. Specifically, the BAAPCD has adopted a regulation that will prevent the construction of new facilities in the Bay Area where it can be shown that the new construction, no matter how tightly controlled, will cause air that is already dirty to be further degraded.

This is a dramatic new step forward in the battle to secure clean air, and an important move toward comprehensive land use planning, where the impact of growth will be appraised in terms of community health, and cost-benefit alternatives.

As long as there are people, factories and automobiles, air pollution can never be eliminated. Realistically, our goal is to attain maximum effective control and we have gone a long way toward attaining that end. But much work still remains to be done before we can truthfully say that we have done everything possible to control air pollution.



WHAT CAN I DO?

There are a number of actions the concerned individual can take to help fight air pollution:

- ☐ CONTACT the BAAPCD for materials.
- ☐ EDUCATE yourself. Learn as much as possible about air pollution and its control. Learn how it relates to other environmental problems.
- ☐ COMMUNICATE your concern to others, your family, your friends, your representatives in government.
- ☐ DON'T burn trash in your backyard. This practice is now illegal within the BAAPCD.
- ☐ REPORT backyard burners and industrial violators to the BAAPCD by phoning 771-6000.
- ☐ CHECK your car's smog control device regularly and keep your engine tuned.
- ☐ SUPPORT legislation on all levels of government for strong pollution control measures.
- ☐ EXAMINE your personal role as a polluter. Learn to live a less polluting life.

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FOR MORE INFORMATION

■ on Bay Area air pollution control contact:

Bay Area Air Pollution Control District
939 Ellis Street
San Francisco, California 94109
(415) 771-6000*

■ on automotive air pollution and the State's air pollution program:

The Air Resources Board
1709 - 11th Street
Sacramento, California 95814
(916) 322-2990

■ on water pollution control:

The Regional Water Quality Control Board
1111 Jackson Street, Room 6040
Oakland, California 94612
(415) 464-1255

■ on Federal environmental programs:

The Environmental Protection Agency (EPA)
100 California Street
San Francisco, California 94102
(415) 556-3232

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